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COMMENTARY

METHODOLOGICAL INNOVATION IN CALL RESEARCH AND ITS ROLE IN SLA

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As the field of CALL matures, teacher-scholars are employing many new and exciting applications of digital technologies for second and foreign language learning, including mobile technologies, gaming, and social media to name just a few. Likewise, new applications for student–computer and student–student interaction continue to improve and expand. Such developments, while exciting, present a host of methodological challenges for researchers. That is to say, as we attempt to harness many of these technologies for language learning and study their effectiveness, we often find that familiar methodologies for collecting and analyzing data are limited if not fully inadequate. The articles in this special issue on methodological innovation in CALL highlight how specific innovative methodological choices allow researchers to capture and analyze aspects of learner–computer or learner–learner interaction in ways that help illuminate the relationship between CALL and second language development.

In this issue, Guichon proposes a methodological approach to creating a shareable multimodal corpus of synchronous online pedagogical interactions. In an effort to move the examination of L2 virtual exchanges beyond the simple comparative quantitative realm, Guichon proposes focusing on the multimodal aspects of what he terms the teachers' semio-pedagogical activity. Semio-pedagogical activity pertains to instructors' use of the various semiotic and technical resources at their disposal and to the degree of professional competence they display in order to facilitate L2 learning. The article outlines steps taken in the creation of a multimodal and shareable corpus based on a telecollaboration project for French in a practical and structured way. This corpus includes artifacts that reflect what occurred and those that relate to the interaction and tasks, as well as participants' views of the interaction. These include lesson plans, videos, transcripts of group debriefing sessions, field notes, photographs, and interviews with teachers and students touching on a variety of relevant topics. Provided that a corpus has been made accessible and has undergone proper annotation, structuration, and contextualization, SLA researchers engaged in telecollaboration may tap into what others have documented and reuse these data in exploring new questions from a variety of epistemological stances.

In *Methodological innovation for the study of request production in telecollaboration*, Cunningham, in a mixed methods study, builds on the modest amount of research on requesting behavior in SCMC contexts as he investigates learner–expert interaction. English native speakers communicated synchronously with L1 German speaker professionals during a series of web conferences as part of a German for professional purposes course. Specifically, he explored the nature of request directness and internal and external modifications in the two groups of speakers. Quantitative data from a generalized linear mixed model showed that L2 German speakers produced a lower frequency of internal modifiers than did experts. Findings also showed that, though not statistically significant, L2 German learners used proportionally more direct expressions than did expert speakers. Subsequent qualitative analysis showed they likely did so in order to maintain the flow of conversation and to consistently engage their interlocutors. Thus, Cunningham employs an innovative analysis in drilling down into one of the statistically non-significant findings. Also, this study is innovative in that it shows how telecollaboration can provide a context for

more naturalistic request production and evaluation. As most studies of L1–L2 requesting behavior tend to explore in-person, or in some cases ACMC, interaction, this study is quite timely and relevant given the recent explosion of online-only courses. This study moves the field beyond its reliance on discourse completion tasks, which have limited applicability to naturalistic settings.

In *Digital-gaming trajectories and second language development*, Scholz and Schulze illustrate a much needed move away from research that relies on learner reflections and beliefs about L2 gameplay and toward a focus on the gaming process and L2 development. They argue that as most authentic gameplay occurs extramurally, attempting to make direct observations of learners' activities is quite challenging. With this in mind, they make a case for approaching digital game-based language learning through complex adaptive systems research (Larsen-Freeman & Cameron, 2008a, 2008b) and Dörnyei's (2014) retrodictive modeling. Their article reports on an extramural study of learners of German playing World of Warcraft over four months where the main focus was to understand how a language learner's trajectory of gameplay interacted with his or her trajectory of L2 development. In addition to the gameplay, learners met in small groups to discuss their gameplay experiences in German. Learners also participated in a concluding interview where they reflected on the gameplay experience and impressions of their L2 development. In order to determine L2 development, they looked for examples of near transfer of linguistic constructions between gaming and non-gaming contexts. All game activity was logged and in-group conversations about gaming experiences were video-recorded and transcribed. Their results suggest that the language observed during gaming contexts is transferrable to non-gaming contexts. They argue that because of the wide variety of potential ways learners interact with games, it is necessary to take an approach such as retrodictive qualitative modeling to understand digital gaming for L2 development purposes as a complex adaptive system.

In one of the very few CALL studies to employ Skill Acquisition Theory (Dekeyser, 2007), Cornillie, Van den Noortgate, Van den Branden, and Desmet report on a semester-long study of high school Dutch-speaking learners of English that implements features of laboratory-based L2 research in both classroom and extracurricular contexts. Learners played two versions of mini games, first with a tutorial version during class in which one of two types of immediate feedback was provided. Later, learners had opportunities for voluntary practice with these games at home or at school. The goal was to examine the effects of focused practice on automatization of grammatical knowledge and explore how practice was affected by metalinguistic information provided in feedback and also by rule complexity. Findings suggest some evidence that focused practice helped learners develop automaticity in the ecologically valid context of the learners' homes. Findings also suggest that practice and metalinguistic feedback are more beneficial for grammar constructions with lower cognitive complexity. Especially innovative in this study is the application of what the authors refer to as in vitro experimental research techniques in in vivo, or naturalistic, L2 learning contexts and the use of statistical mixed effects models to account for the complexity of real-life tracking data.

Yim and Warschauer discuss how new text mining tools can enhance research into collaborative L2 writing by providing a fine-grain analysis of elusive collaborative writing processes. Establishing that most studies into L2 collaborative writing involve small sample sizes and rely almost entirely on qualitative methods, they argue that such an approach is quite limiting. The article first synthesizes current research strands and methodological approaches to investigating collaborative writing, which include exploring processes, outcomes, and perceptions of collaborative writing. It then introduces examples from the literature that illustrate the potential of using text mining to enhance our understanding of each of these strands. Studies that employ specific text mining tools for analyzing group documents in Google Docs are also discussed. These tools are especially useful with large data sets and may be used for quantifying the amount of collaboration, visualizing the collaborative writing process, and facilitating stimulated recall in explorations of collaborative writing processes.

In a case study exploring identity in interaction, Helm and Dooly discuss some of the challenges faced

when transcribing multimodal data. They use data from the Soliya Connect Program, whose main aim is to use English as a vehicular language in bridging the gap between western societies and predominantly Muslim societies. This online environment afforded communication across a range of modes, including oral, visual, and textual. The platform is especially complex in that up to twelve participants at a time may be engaged simultaneously. The researchers discuss how they prioritized the oral mode, due to the amount of interaction present in this mode, and then incorporated the textual and visual data as made relevant by the oral interaction. While acknowledging the subjectivity of such an endeavor, the challenges in sculpting a coherent and user-friendly transcript that adequately incorporated all modes of interaction are discussed and a proposal for creating a working multimodal transcript is offered.

Taken together, these six articles present a wealth of information that will guide CALL researchers as they apply new ways of theorizing, framing, capturing, examining, organizing, and analyzing CALL data. Enjoy!

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REFERENCES

DeKeyser, R. M. (2007). Skill acquisition theory. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition* (pp. 97–114). New York, NY: Routledge.

Dörnyei, Z. (2014). Researching complex dynamic systems: "Retrodictive qualitative modeling" in the language classroom. *Language Teaching*, *47*(1), 80–91.

Larsen-Freeman, D., & Cameron, L. (2008a). *Complex systems and applied linguistics*. Oxford, UK: Oxford University Press.

Larsen-Freeman, D., & Cameron, L. (2008b). Research methodology on language development from a complex systems perspective. *Modern Language Journal*, *92*(2), 200–213.